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stearidonic acid and desaturase and (fat or triglycid\$2)

27

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or triglycid\$2)[Refine Search](#)[Clear](#)**Search History****Today's Date: 10/9/2001**

<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT,PGPB,JPAB,EPAB,DWPI	stearidonic acid and desaturase and (fat or triglycid\$2)	27	L6
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USPT	stearidonic acid and desaturase	38	L4
USPT	stearidonic acid	79	L3
USPT	steariodonic acid	0	L2
USPT	steariodonic acid and desaturase	0	L1

WEST**Generate Collection****Search Results - Record(s) 1 through 10 of 27 returned.** **1. Document ID: US 6140486 A**

L6: Entry 1 of 27

File: USPT

Oct 31, 2000

US-PAT-NO: 6140486

DOCUMENT-IDENTIFIER: US 6140486 A

TITLE: Production of polyunsaturated fatty acids by expression of polyketide-like synthesis genes in plants

DATE-ISSUED: October 31, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Facciotti; Daniel	Davis	CA	N/A	N/A
Metz; James George	Davis	CA	N/A	N/A
Lassner; Michael	Davis	CA	N/A	N/A

US-CL-CURRENT: 536/23.2; 435/69.1

ABSTRACT:

The present invention relates to compositions and methods for preparing poly-unsaturated long chain fatty acids in plants, plant parts and plant cells, such as leaves, roots, fruits and seeds. Nucleic acid sequences and constructs encoding PKS-like genes required for the poly-unsaturated long chain fatty acid production, including the genes responsible for eicosapentenoic acid production of *Shewanella putrefaciens* and novel genes associated with the production of docosahexenoic acid in *Vibrio marinus* are used to generate transgenic plants, plant parts and cells which contain and express one or more transgenes encoding one or more of the PKS-like genes associated with such long chain polyunsaturated fatty acid production. Expression of the PKS-like genes in the plant system permits the large scale production of poly-unsaturated long chain fatty acids such as eicosapentenoic acid and docosahexenoic acid for modification of the fatty acid profile of plants, plant parts and tissues. Manipulation of the fatty acid profiles allows for the production of commercial quantities of novel plant oils and products.

3 Claims, 105 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 123

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWMC	Draw Desc	Image
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 2. Document ID: US 6140304 A

L6: Entry 2 of 27

File: USPT

Oct 31, 2000

US-PAT-NO: 6140304

DOCUMENT-IDENTIFIER: US 6140304 A

TITLE: Method of and nutritional and pharmaceutical compositions for reduction of hyperinsulinemia

DATE-ISSUED: October 31, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sears; Barry D.	Swampscott	MA	N/A	N/A

US-CL-CURRENT: 514/2; 514/23, 514/549, 514/552, 514/560

ABSTRACT:

A method and nutritional and pharmaceutical compositions are provided for the reduction of hyperinsulinemia and the improvement of disease conditions related to hyperinsulinemia by administering a nutritional composition to modify hormonal response.

16 Claims, 5 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	KWIC	Draw Desc	Image
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3. Document ID: US 6136574 A

L6: Entry 3 of 27

File: USPT

Oct 24, 2000

US-PAT-NO: 6136574

DOCUMENT-IDENTIFIER: US 6136574 A

TITLE: Methods and compositions for synthesis of long chain polyunsaturated fatty acids

DATE-ISSUED: October 24, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Knutzon; Deborah	Granite Bay	CA	N/A	N/A
Mukerji; Pradip	Gahanna	OH	N/A	N/A
Huang; Yung-Sheng	Upper Arlington	OH	N/A	N/A
Thurmond; Jennifer	Columbus	OH	N/A	N/A
Chaudhary; Sunita	Pearland	TX	N/A	N/A

US-CL-CURRENT: 435/134; 435/136

ABSTRACT:

The present invention relates to fatty acid desaturases able to catalyze the conversion of oleic acid to linoleic acid, linoleic acid to gamma-linolenic acid, or of alpha-linolenic acid to stearidonic acid. Nucleic acid sequences encoding desaturases, nucleic acid sequences which hybridize thereto, DNA constructs comprising a desaturase gene, and recombinant host microorganism or animal expressing increased levels of a desaturase are described. Methods for desaturating a fatty acid and for producing a desaturated fatty acid by expressing increased levels of a desaturase are disclosed. Fatty acids, and oils containing them, which have been desaturated by a desaturase produced by recombinant host microorganisms or animals are provided. Pharmaceutical compositions, infant formulas or dietary supplements containing fatty acids which have been desaturated by a desaturase produced by a recombinant host microorganism or animal also are described.

22 Claims, 18 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 16

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KWMC](#) [Drawn Desc](#) [Image](#)**4. Document ID: US 6107334 A**

L6: Entry 4 of 27

File: USPT

Aug 22, 2000

US-PAT-NO: 6107334

DOCUMENT-IDENTIFIER: US 6107334 A

TITLE: Dietary control of arachidonic acid metabolism

DATE-ISSUED: August 22, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chilton; Floyd H.	Pilot Mountain	NC	N/A	N/A

US-CL-CURRENT: 514/464; 514/558, 514/560, 514/679, 514/825, 514/826, 514/863

ABSTRACT:

The present invention is directed towards the control of inflammation. More specifically there are provided herein dietary fatty acid regimens that may be used to inhibit the increase of serum arachidonic acid when GLA is provided as a dietary supplement.

11 Claims, 17 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 10

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KWMC](#) [Drawn Desc](#) [Image](#)**5. Document ID: US 6075183 A**

L6: Entry 5 of 27

File: USPT

Jun 13, 2000

US-PAT-NO: 6075183

DOCUMENT-IDENTIFIER: US 6075183 A

TITLE: Methods and compositions for synthesis of long chain poly-unsaturated fatty acids in plants

DATE-ISSUED: June 13, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Knutzon; Deborah	Granite Bay	CA	N/A	N/A
Mukerji; Pradip	Gahanna	OH	N/A	N/A
Huang; Yung-Sheng	Upper Arlington	OH	N/A	N/A
Thurmond; Jennifer	Columbus	OH	N/A	N/A
Chaudhary; Sunita	Pearland	TX	N/A	N/A

US-CL-CURRENT: 800/281; 435/134, 435/252.3, 435/419, 435/430, 435/468, 435/471, 435/69.1, 536/23.2, 800/298

ABSTRACT:

The present invention relates to compositions and methods for preparing poly-unsaturated long chain fatty acids in plants, plant parts and plant cells, such as leaves, roots, fruits and seeds. Nucleic acid sequences and constructs encoding fatty acid desaturases, including .DELTA.5-desaturases, .DELTA.6-desaturases and .DELTA.12-desaturases, are used to generate transgenic plants, plant parts and cells which contain and express one or more transgenes encoding one or more desaturases. Expression of the desaturases with different substrate specificities in the plant system permit the large scale production of poly-unsaturated long chain fatty acids such as docosahexaenoic acid, eicosapentaenoic acid, .alpha.-linoleic acid, gamma-linolenic acid, arachidonic acid and the like for modification of the fatty acid profile of plants, plant parts and tissues. Manipulation of the fatty acid profiles allows for the production of commercial quantities of novel plant oils and products.

22 Claims, 7 Drawing figures Exemplary Claim Number: 19

Number of Drawing Sheets: 17

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KAC](#) [Draw Desc](#) [Image](#)

□ 6. Document ID: US 6051754 A

L6: Entry 6 of 27

File: USPT

Apr 18, 2000

US-PAT-NO: 6051754

DOCUMENT-IDENTIFIER: US 6051754 A

TITLE: Methods and compositions for synthesis of long chain poly-unsaturated fatty acids in plants

DATE-ISSUED: April 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Knutzon; Deborah	Granite Bay	CA	N/A	N/A

US-CL-CURRENT: 800/281; 435/252.3, 435/419, 536/23.2

ABSTRACT:

The present invention relates to compositions and methods for preparing poly-unsaturated long chain fatty acids in plants, plant parts and plant cells, such as leaves, roots, fruits and seeds. Nucleic acid sequences and constructs encoding fatty acid desaturases, including .DELTA.5-desaturases, .DELTA.6-desaturases and .DELTA.12-desaturases, are used to generate transgenic plants, plant parts and cells which contain and express one or more transgenes encoding one or more desaturases. Expression of the desaturases with different substrate specificities in the plant system permit the large scale production of poly-unsaturated long chain fatty acids such as docosahexaenoic acid, eicosapentaenoic acid, .alpha.-linoleic acid, gamma-linolenic acid, arachidonic acid and the like for modification of the fatty acid profile of plants, plant parts and tissues. Manipulation of the fatty acid profiles allows for the production of commercial quantities of novel plant oils and products.

14 Claims, 8 Drawing figures Exemplary Claim Number: 7

Number of Drawing Sheets: 21

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[DOC](#) | [Draw Desc](#) | [Image](#) 7. Document ID: US 6015821 A

L6: Entry 7 of 27

File: USPT

Jan 18, 2000

US-PAT-NO: 6015821

DOCUMENT-IDENTIFIER: US 6015821 A

TITLE: Nicotinic acid esters and pharmaceutical compositions containing them

DATE-ISSUED: January 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP	CODE	COUNTRY
Horrobin; David Frederick	Guildford, Surrey, GU1 1BA	N/A	N/A		GBX
Manku; Mehar	N/A	N/A	N/A		N/A
N/A	Carlisle, CA3 0HA	N/A	N/A		GBX
McMordie; Austin	N/A	N/A	N/A		N/A
N/A	Carlisle, CA3 0HA	N/A	N/A		GBX
Knowles; Philip	N/A	N/A	N/A		N/A
Redden; Peter	Carlisle, CA3 0HA				GBX
Pitt; Andrea	Nova Scotia				CAX

US-CL-CURRENT: 514/355; 514/277, 546/315, 546/339

ABSTRACT:

Compounds, compositions, and methods of use as a pharmaceutical, where the compounds have structure (I), where B is --C(.dbd.O)-- or --CH₂--O--, C is a direct bond or is a diol residue, a hydroxy-substituted carboxylic acid residue, or a dicarboxylic acid residue, and D is a fatty acid residue or a fatty alcohol residue, where the acid residues or alcohol residues for ester linkages with the corresponding alcohols or acids.

8 Claims, 0 Drawing figures Exemplary Claim Number: 1

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KWMC](#) | [Drawn Desc](#) | [Image](#) 8. Document ID: US 5972664 A

L6: Entry 8 of 27

File: USPT

Oct 26, 1999

US-PAT-NO: 5972664

DOCUMENT-IDENTIFIER: US 5972664 A

TITLE: Methods and compositions for synthesis of long chain poly-unsaturated fatty acids

DATE-ISSUED: October 26, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Knutzon; Deborah	Granite Bay	CA	N/A	N/A
Mukerji; Pradip	Grahanna	OH	N/A	N/A
Huang; Yung-Sheng	Arlington	OH	N/A	N/A
Thurmond; Jennifer	Columbus	OH	N/A	N/A
Chaudhary; Sunita	Westerville	OH	N/A	N/A

US-CL-CURRENT: 435/136; 435/189, 435/252.3, 435/254.3, 435/320.1, 536/23.2

ABSTRACT:

The present invention relates to a fatty acid .DELTA.5-desaturase able to catalyze the conversion of dihomo-gamma-linolenic acid to arachidonic acid. Nucleic acid sequences encoding a .DELTA.5-desaturase, nucleic acid sequences which hybridize thereto, DNA constructs comprising a .DELTA.5-desaturase gene, and recombinant host microorganism or animal expressing increased levels of a .DELTA.5-desaturase are described. Methods for desaturating a fatty acid at the .DELTA.5 position and for producing arachidonic acid by expressing increased levels of a .DELTA.5 desaturase are disclosed. Fatty acids, and oils containing them, which have been desaturated by a .DELTA.5-desaturase produced by recombinant host microorganisms or animals are provided. Pharmaceutical compositions, infant formulas or dietary supplements containing fatty acids which have been desaturated by a .DELTA.5-desaturase produced by a recombinant host microorganism or animal also are described.

52 Claims, 21 Drawing figures Exemplary Claim Number: 34

Number of Drawing Sheets: 17

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KMC](#) | [Draw Desc](#) | [Image](#) 9. Document ID: US 5968809 A

L6: Entry 9 of 27

File: USPT

Oct 19, 1999

US-PAT-NO: 5968809

DOCUMENT-IDENTIFIER: US 5968809 A

TITLE: Methods and compositions for synthesis of long chain poly-unsaturated fatty acids

DATE-ISSUED: October 19, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Knutzon; Deborah	Granite Bay	CA	N/A	N/A
Mukerji; Pradip	Gahanna	OH	N/A	N/A
Huang; Yung-Sheng	Upper Arlington	OH	N/A	N/A
Thurmond; Jennifer	Columbus	OH	N/A	N/A
Chaudhary; Sunita	Westerville	OH	N/A	N/A

US-CL-CURRENT: 435/254.2, 435/189, 435/254.21, 435/320.1, 435/325, 435/410, 536/23.1,
536/23.2, 536/23.7, 536/23.74, 536/24.32

ABSTRACT:

The present invention relates to fatty acid desaturases able to catalyze the conversion of oleic acid to linoleic acid, linoleic acid to gamma-linolenic acid, or of alpha-linolenic acid to stearidonic acid. Nucleic acid sequences encoding desaturases, nucleic acid sequences which hybridize thereto, DNA constructs comprising a desaturase gene, and recombinant host microorganism or animal expressing increased levels of a desaturase are described. Methods for desaturating a fatty acid and for producing a desaturated fatty acid by expressing increased levels of a desaturase are disclosed. Fatty acids, and oils containing them, which have been desaturated by a desaturase produced by recombinant host microorganisms or animals are provided. Pharmaceutical compositions, infant formulas or dietary supplements containing fatty acids which have been desaturated by a desaturase produced by a recombinant host microorganism or animal also are described.

30 Claims, 18 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 16

Full	Title	Citation	Front	Review	Classification	Date	Reference	KWIC	Draw Desc	Image
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□ 10. Document ID: US 5922345 A

L6: Entry 10 of 27

File: USPT

Jul 13, 1999

US-PAT-NO: 5922345

DOCUMENT-IDENTIFIER: US 5922345 A

TITLE: Nutrition

DATE-ISSUED: July 13, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Surrey	N/A	N/A	GBX
Lindmark; Lars	Falsterbo	N/A	N/A	SEX

US-CL-CURRENT: 424/439; 514/558, 514/560

ABSTRACT:

Countering side effects of parenteral or fluid-diet enteral nutrition by adding one or more 6-desaturated essential fatty acids (EFAs) to parenteral or enteral composition (particularly low-fat compositions) being given, or giving them in addition to the compositions.

3 Claims, 1 Drawing figures Exemplary Claim Number: 1
Number of Drawing Sheets: 1

WEST**Generate Collection****Search Results - Record(s) 11 through 20 of 27 returned.** **11. Document ID: US 5888541 A**

L6: Entry 11 of 27

File: USPT

Mar 30, 1999

US-PAT-NO: 5888541

DOCUMENT-IDENTIFIER: US 5888541 A

TITLE: Fatty acid treatment

DATE-ISSUED: March 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2
Reynolds; Brenda E.	Guildford	N/A	N/A	GB2

US-CL-CURRENT: 424/464; 424/195.15, 424/451, 424/489, 424/765, 514/560

ABSTRACT:

Increase gut calcium absorption in humans or animals by the administration of GLA, DGLA or LA as such or in salt or other pharmacologically acceptable form, optionally in association with EPA, DHA or other EFA in similar forms, specifically useful in the treatment of osteoporosis.

11 Claims, 0 Drawing figures Exemplary Claim Number: 1

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KMC](#) | [Draw Desc](#) | [Image](#) **12. Document ID: US 5620701 A**

L6: Entry 12 of 27

File: USPT

Apr 15, 1997

US-PAT-NO: 5620701

DOCUMENT-IDENTIFIER: US 5620701 A

TITLE: Methods of treatment using di-linoleoyl-mono-gamma-linolenyl glycerol

DATE-ISSUED: April 15, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2
Huang; Yung-Sheng	Kentville	N/A	N/A	CAX

US-CL-CURRENT: 424/443; 424/401, 424/423, 424/430, 424/435, 424/436, 424/439, 424/449,
424/451, 424/464, 424/47, 424/489, 424/78.03, 514/558

ABSTRACT:

Atopic eczema, breast pain or premenstrual syndrome are treated by administering to a person in need of same a composition containing at least 20% di-linoleoyl-mono-gamma-linolenyl glycerol by weight.

7 Claims, 0 Drawing figures Exemplary Claim Number: 1

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KWC](#) [Draw Desc](#) [Image](#)

13. Document ID: US 5618558 A

L6: Entry 13 of 27

File: USPT

Apr 8, 1997

US-PAT-NO: 5618558

DOCUMENT-IDENTIFIER: US 5618558 A

TITLE: Fatty acid treatment

DATE-ISSUED: April 8, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2
Reynolds; Brenda E.	Guildford	N/A	N/A	GB2

US-CL-CURRENT: 424/464; 424/451, 514/560

ABSTRACT:

Increasing gut calcium absorption in humans or animals by the administration of GLA, DGLA or LA as such or in salt or other pharmacologically acceptable form, optionally in association with EPA, DHA or other EFA in similar forms, specifically useful in treatment of osteoporosis.

8 Claims, 0 Drawing figures Exemplary Claim Number: 1

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KWC](#) [Draw Desc](#) [Image](#)

14. Document ID: US 5604216 A

L6: Entry 14 of 27

File: USPT

Feb 18, 1997

US-PAT-NO: 5604216

DOCUMENT-IDENTIFIER: US 5604216 A

TITLE: Compositions containing esters of unsaturated fatty acids

DATE-ISSUED: February 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2

US-CL-CURRENT: 514/182; 514/169, 552/544

ABSTRACT:

Pharmaceutical and nutritional compositions are disclosed containing, in association with a suitable diluent or carrier, at least 10% by weight of a cholesterol fatty acid ester where the fatty acid is gamma-linolenic acid, dihomo-gamma-linolenic acid, adrenic acid, the 22:5 n-6 acid, stearidonic acid, the 20:4 n-3 acid, eicosapentaenoic acid, docosahexaenoic acid, the 22:5 n-3 acid or columbinic acid. Novel cholesterol columbinic acid esters are described.

13 Claims, 0 Drawing figures Exemplary Claim Number: 1

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KWC](#) [Draw Desc](#) [Image](#)

15. Document ID: US 5552150 A

L6: Entry 15 of 27

File: USPT

Sep 3, 1996

US-PAT-NO: 5552150

DOCUMENT-IDENTIFIER: US 5552150 A

TITLE: Compostions containing di-linoleoyl-mono-gamma-linolenyl-glycerol

DATE-ISSUED: September 3, 1996

INVENTOR- INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2
Huang; Yung-Sheng	Kentville	N/A	N/A	CAX

US-CL-CURRENT: 424/439; 424/401, 424/422, 424/430, 424/435, 424/436, 424/443, 424/449,
424/451, 424/464, 424/47, 424/489, 424/78.03, 514/558

ABSTRACT:

A natural or synthetic glycerol oil which comprises at least 20% by weight, preferably at least 25% of di-linoleoyl-mono-gamma-linolenyl-glycerol (DLMG), is used to supplement foods, nutritional compositions and in skin and hair care compositions.

4 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	KMC	Draw Desc	Image
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 16. Document ID: US 5445822 A

L6: Entry 16 of 27

File: USPT

Aug 29, 1995

US-PAT-NO: 5445822

DOCUMENT-IDENTIFIER: US 5445822 A

TITLE: Cosmetic compositions containing fatty acid triglyceride mixtures

DATE-ISSUED: August 29, 1995

INVENTOR- INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bracco; Umberto	Vevey	N/A	N/A	CHX

US-CL-CURRENT: 424/401; 424/400, 424/59, 424/63, 424/64

ABSTRACT:

A topical cosmetic composition contains a cosmetic carrier and a mixture of fatty acid triglycerides. The fatty acids of the triglycerides include 40% to 70% by weight oleic acid, 30% to 50% by weight polyunsaturated acids, 0.2% to 1.0% by weight gamma-linolenic, 1% to 5% by weight alpha-linolenic acid, and the ratio by weight of n-6 fatty acids to n-3 fatty acids with a degree of unsaturation of 3 or more in the triglycerides is 10:1 to 30:1.

13 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	KMC	Draw Desc	Image
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17. Document ID: US 5328691 A

L6: Entry 17 of 27

File: USPT

Jul 12, 1994

US-PAT-NO: 5328691

DOCUMENT-IDENTIFIER: US 5328691 A

TITLE: Fatty acid compositions

DATE-ISSUED: July 12, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2
Huang; Yung-Sheng	Kentville	N/A	N/A	CAX

US-CL-CURRENT: 424/401; 424/422, 424/430, 424/435, 424/436, 424/439, 424/443, 424/449,
424/451, 424/464, 424/47, 424/489, 424/78.03, 426/34, 426/601, 426/607, 514/558

ABSTRACT:

A natural or synthetic glycerol oil which comprises at least 20% by weight, preferably at least 25% of di-linoleoyl-mono-gamma-linolenyl-glycerol (DLMG), is used to supplement foods, nutritional compositions and in skin and hair care compositions.

10 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	KMC	Drawn Desc	Image
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 18. Document ID: US 5318991 A

L6: Entry 18 of 27

File: USPT

Jun 7, 1994

US-PAT-NO: 5318991

DOCUMENT-IDENTIFIER: US 5318991 A

TITLE: Fatty acid treatment to reduce calcium excretion

DATE-ISSUED: June 7, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2
Buck; Alfred C.	Glasgow	N/A	N/A	GB6

US-CL-CURRENT: 514/560; 514/558

ABSTRACT:

Reduction of urinary calcium excretion in humans or animals by the administration of GLA or DGLA as much or in salt or other pharmacologically acceptable form, optionally in association with EPA, DHA or other EFA in similar forms, is also useful in the treatment of nephrocalcinosis, renal stones and osteoporosis.

11 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	KMC	Drawn Desc	Image
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 19. Document ID: US 5308832 A

L6: Entry 19 of 27

File: USPT

May 3, 1994

US-PAT-NO: 5308832

DOCUMENT-IDENTIFIER: US 5308832 A

TITLE: Nutritional product for persons having a neurological injury

DATE-ISSUED: May 3, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garleb; Keith A.	Powell	OH	N/A	N/A
DeMichele; Stephen J.	Dublin	OH	N/A	N/A
Rausch; Linda S.	Blacklick	OH	N/A	N/A
Fuller; Martha K.	Columbus	OH	N/A	N/A
Behr; Stephen R.	Westerville	OH	N/A	N/A

US-CL-CURRENT: 514/2; 426/656, 426/800, 514/21

ABSTRACT:

An enteral nutritional product for a person having a neurological injury is very low in carbohydrate, but high in fat. The fat is supplied by a lipid blend having a ratio of n-6 to n-3 fatty acids in the range of 1 to 6. Preferably the nutritional product contains nutrients having antioxidant properties, for example beta-carotene, vitamin E, vitamin C, taurine, molybdenum and selenium.

19 Claims, 2 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference	KMC	Draw Desc	Image
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 20. Document ID: US 5234952 A

L6: Entry 20 of 27

File: USPT

Aug 10, 1993

US-PAT-NO: 5234952

DOCUMENT-IDENTIFIER: US 5234952 A

TITLE: Reduction of thrombogenicity with lipids of blackcurrant seed

DATE-ISSUED: August 10, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Crozier-Willi; Gayle	Evian	N/A	N/A	FRX
Fleith; Mathilde	Vevey	N/A	N/A	CHX
Buchanan; Michael	Toronto	N/A	N/A	CAX

US-CL-CURRENT: 514/558; 514/822, 514/824

ABSTRACT:

Lipids obtained from blackcurrant seed are used for reducing thrombogenicity of blood vessels in humans.

8 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	KMC	Draw Desc	Image
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[Generate Collection](#)

Terms	Documents
stearidonic acid and desaturase and (fat or triglycerid\$2)	27

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Documents, starting with Document:

21

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WEST**Generate Collection****Search Results - Record(s) 21 through 27 of 27 returned.** **21. Document ID: US 5223285 A**

L6: Entry 21 of 27

File: USPT

Jun 29, 1993

US-PAT-NO: 5223285

DOCUMENT-IDENTIFIER: US 5223285 A

TITLE: Nutritional product for pulmonary patients

DATE-ISSUED: June 29, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMichele; Stephen J.	Dublin	OH	N/A	N/A
Gregory; Timothy J.	Gahanna	OH	N/A	N/A

US-CL-CURRENT: 426/72, 426/73, 426/800, 426/801, 514/904

ABSTRACT:

A liquid nutritional product for enteral feeding contains a fat source which provides desirable effects when fed to pulmonary patients. The fat source having by weight a ratio of [n-(6) to n-(3)] fatty acids from the group consisting of Linoleic acid (18:2n6), Gamma-Linolenic acid (18:3n6), and Arachidonic acid (20:4n6) to fatty acids from the group consisting of Alpha-Linolenic acid (18:3n3), Stearidonic acid (18:4n3), Eicosapentaenoic acid (20:5n3), Docosapentaenoic acid (22:5n3) and Docosahexaenoic acid (22:6n3) in the range of about 1.5 to about 3.0, a ratio of Linoleic acid (18:2n6) to Alpha-Linolenic acid (18:3n3) in the range of about 3.0 to about 10.0, and a ratio of the sum of Eicosapentaenoic acid (20:5n3) and Docosahexaenoic acid (22:6n3) to Gamma-Linolenic acid (18:3n6) in the range of about 1.0 to about 10.0. In a preferred embodiment the nutritional product contains quantities of nutrients having anti-oxidant properties *in vivo*, such as beta-carotene, vitamin E, vitamin C, selenium, and taurine.

27 Claims, 6 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 6

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KMC](#) [Draw Desc](#) [Image](#) **22. Document ID: US 5198468 A**

L6: Entry 22 of 27

File: USPT

Mar 30, 1993

US-PAT-NO: 5198468

DOCUMENT-IDENTIFIER: US 5198468 A

TITLE: Essential fatty acid composition

DATE-ISSUED: March 30, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2

US-CL-CURRENT: 514/558

ABSTRACT:

Treatment or prevention of memory loss with a medicament consisting of an n-6 essential fatty acid selected from GLA, DGLA, AA, adrenic acid and the 22:5 n-6 acid and an n-3 essential fatty acid selected from the 18:4 n-3 and 20:4 n-3 acids, EPA, the 22:5 n-3 acid and DHA.

2 Claims, 0 Drawing figures Exemplary Claim Number: 1

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KWMC](#) [Drawn Desc](#) [Image](#) 23. Document ID: US 5141958 A

L6: Entry 23 of 27

File: USPT

Aug 25, 1992

US-PAT-NO: 5141958

DOCUMENT-IDENTIFIER: US 5141958 A

TITLE: Inhibition of cell adhesion for reducing cancer cell metastases

DATE-ISSUED: August 25, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Crozier-Willi; Gayle	Evian	N/A	N/A	FRX
Fleith; Mathilde	Vevey	N/A	N/A	CHX
Buchanan; Michael	Toronto	N/A	N/A	CAX

US-CL-CURRENT: 514/558; 424/765

ABSTRACT:

Lipids obtained from blackcurrant seed are used for preventing proliferation and dissemination of cancerous metastases in patients.

7 Claims, 0 Drawing figures Exemplary Claim Number: 1

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KWMC](#) [Drawn Desc](#) [Image](#) 24. Document ID: US 5130449 A

L6: Entry 24 of 27

File: USPT

Jul 14, 1992

US-PAT-NO: 5130449

DOCUMENT-IDENTIFIER: US 5130449 A

TITLE: Isolation of stearidonic acid from fatty acid mixtures

DATE-ISSUED: July 14, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lagarde; Michel	Chassieu	N/A	N/A	FRX
Traitler; Helmut	Vevey	N/A	N/A	CHX
Wille; Hans-Juergen	Villeneuve	N/A	N/A	CHX

US-CL-CURRENT: 554/186; 554/191

ABSTRACT:

Substantially pure stearidonic acid is isolated from a mixture of polyunsaturated fatty acids by fractionating at 25% to 35% by weight solution of fatty acids by high-performance reverse-phase liquid chromatography using a mobile phase of 75% to 95% by weight methanol and 25% to 5% by weight water. The isolated stearidonic acid is used to prepare pharmaceutical compositions which are administered to treat cardiovascular and thrombo-embolic diseases associated with platelet aggregation.

20 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	KMC	Draw Desc	Image
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 25. Document ID: US 5120760 A

L6: Entry 25 of 27

File: USPT

Jun 9, 1992

US-PAT-NO: 5120760

DOCUMENT-IDENTIFIER: US 5120760 A

TITLE: Treating tardive dyskinesia with essential fatty acid compositions

DATE-ISSUED: June 9, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2

US-CL-CURRENT: 514/458; 514/560

ABSTRACT:

Method of, and preparations of medicaments for, treating schizophrenia and/or associated tardive dyskinesia by combining an essential fatty acid selected from GLA and higher n-6 series acids with an essential fatty acid selected from stearidonic acid and higher n-3 series acids in effective daily amounts of 10 mg and 50 g of each acid.

3 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	KMC	Draw Desc	Image
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 26. Document ID: US 4977187 A

L6: Entry 26 of 27

File: USPT

Dec 11, 1990

US-PAT-NO: 4977187

DOCUMENT-IDENTIFIER: US 4977187 A

TITLE: Treating schizophrenia with essential fatty acid compositions

DATE-ISSUED: December 11, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2

US-CL-CURRENT: 514/560

ABSTRACT:

Method of, and preparations of medicaments for, treating schizophrenia and/or associated tardive dyskinesia by combining an essential fatty acid selected from GLA and higher N-6 series acids with an essential fatty acid selected from stearidonic acid and higher n-3 series acids in effective daily amounts of 10 mg and 50 g of each acid.

2 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	KWMC	Draw Desc	Image
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 27. Document ID: US 4758592 A

L6: Entry 27 of 27

File: USPT

Jul 19, 1988

US-PAT-NO: 4758592

DOCUMENT-IDENTIFIER: US 4758592 A

TITLE: Method of treating or preventing endometriosis

DATE-ISSUED: July 19, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2
Casper; Robert A.	Ontario	N/A	N/A	CAX

US-CL-CURRENT: 514/549; 514/560

ABSTRACT:

Method of prevention or treatment of endometriosis wherein effective amounts of one or both of (i) gamma-linolenic acid and/or dihomo-gamma-linolenic acid and (ii) 18:4 n-3 and/or one or more of the metabolites of 18:4 n-3 (20:4 n-3, 20:5 n-3, 22:5 n-3 or 22:6 n-3) are administered against endometriosis as such or in the form of an ester, salt, amide or other derivative convertible in the body thereto, alone or in an acceptable pharmaceutical carrier or diluent.

3 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	KWMC	Draw Desc	Image
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Generate Collection

Terms	Documents
stearidonic acid and desaturase and (fat or triglycid\$2)	27

WEST**Generate Collection****Search Results - Record(s) 1 through 10 of 12 returned.** **1. Document ID: US 6140486 A**

L11: Entry 1 of 12

File: USPT

Oct 31, 2000

US-PAT-NO: 6140486

DOCUMENT-IDENTIFIER: US 6140486 A

TITLE: Production of polyunsaturated fatty acids by expression of polyketide-like synthesis genes in plants

DATE-ISSUED: October 31, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Facciotti; Daniel	Davis	CA	N/A	N/A
Metz; James George	Davis	CA	N/A	N/A
Lassner; Michael	Davis	CA	N/A	N/A

US-CL-CURRENT: 536/23.2; 435/69.1

ABSTRACT:

The present invention relates to compositions and methods for preparing poly-unsaturated long chain fatty acids in plants, plant parts and plant cells, such as leaves, roots, fruits and seeds. Nucleic acid sequences and constructs encoding PKS-like genes required for the poly-unsaturated long chain fatty acid production, including the genes responsible for eicosapentenoic acid production of *Shewanella putrefaciens* and novel genes associated with the production of docosahexenoic acid in *Vibrio marinus* are used to generate transgenic plants, plant parts and cells which contain and express one or more transgenes encoding one or more of the PKS-like genes associated with such long chain polyunsaturated fatty acid production. Expression of the PKS-like genes in the plant system permits the large scale production of poly-unsaturated long chain fatty acids such as eicosapentenoic acid and docosahexenoic acid for modification of the fatty acid profile of plants, plant parts and tissues. Manipulation of the fatty acid profiles allows for the production of commercial quantities of novel plant oils and products.

3 Claims, 105 Drawing figures Exemplary Claim Number: 1
Number of Drawing Sheets: 123[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KWMIC](#) | [Drawn Desc](#) | [Image](#) **2. Document ID: US 6136574 A**

L11: Entry 2 of 12

File: USPT

Oct 24, 2000

US-PAT-NO: 6136574

DOCUMENT-IDENTIFIER: US 6136574 A

TITLE: Methods and compositions for synthesis of long chain polyunsaturated fatty acids

DATE-ISSUED: October 24, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Knutzon; Deborah	Granite Bay	CA	N/A	N/A
Mukerji; Pradip	Gahanna	OH	N/A	N/A
Huang; Yung-Sheng	Upper Arlington	OH	N/A	N/A
Thurmond; Jennifer	Columbus	OH	N/A	N/A
Chaudhary; Sunita	Pearland	TX	N/A	N/A

US-CL-CURRENT: 435/134; 435/136

ABSTRACT:

The present invention relates to fatty acid desaturases able to catalyze the conversion of oleic acid to linoleic acid, linoleic acid to gamma-linolenic acid, or of alpha-linolenic acid to stearidonic acid. Nucleic acid sequences encoding desaturases, nucleic acid sequences which hybridize thereto, DNA constructs comprising a desaturase gene, and recombinant host microorganism or animal expressing increased levels of a desaturase are described. Methods for desaturating a fatty acid and for producing a desaturated fatty acid by expressing increased levels of a desaturase are disclosed. Fatty acids, and oils containing them, which have been desaturated by a desaturase produced by recombinant host microorganisms or animals are provided. Pharmaceutical compositions, infant formulas or dietary supplements containing fatty acids which have been desaturated by a desaturase produced by a recombinant host microorganism or animal also are described.

22 Claims, 18 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 16

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KWC](#) | [Draw Desc](#) | [Image](#) 3. Document ID: US 5994404 A

L11: Entry 3 of 12

File: USPT

Nov 30, 1999

US-PAT-NO: 5994404

DOCUMENT-IDENTIFIER: US 5994404 A

TITLE: Nervonic acid compositions

DATE-ISSUED: November 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Coupland; Keith	Hotham	N/A	N/A	GBX

US-CL-CURRENT: 514/560; 426/601, 426/606, 426/607

ABSTRACT:

A baby or infant composition is provided which comprises one or more nutrient materials and, as a supplement, nervonic acid or a functional derivative thereof or an immediate biochemical precursor of either nervonic acid or a functional derivative thereof, in a physiologically acceptable form. It has been found to be beneficial to administer such a composition to preterm babies and term babies and infants. It has also been to be beneficial to administer nervonic acid or a functional derivative thereof or an immediate biochemical precursor of either nervonic acid or a functional derivative thereof to adults having normal levels of nervonic acid in their body and, in particular, to women who intend to become pregnant, pregnant women and lactating women.

24 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full		Title		Citation		Front		Review		Classification		Date		Reference
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KWIC		Draw. Desc		Image
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 4. Document ID: US 5968809 A

L11: Entry 4 of 12

File: USPT

Oct 19, 1999

US-PAT-NO: 5968809

DOCUMENT-IDENTIFIER: US 5968809 A

TITLE: Methods and compositions for synthesis of long chain poly-unsaturated fatty acids

DATE-ISSUED: October 19, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Knutzon; Deborah	Granite Bay	CA	N/A	N/A
Mukerji; Pradip	Gahanna	OH	N/A	N/A
Huang; Yung-Sheng	Upper Arlington	OH	N/A	N/A
Thurmond; Jennifer	Columbus	OH	N/A	N/A
Chaudhary; Sunita	Westerville	OH	N/A	N/A

US-CL-CURRENT: 435/254.2; 435/189, 435/254.21, 435/320.1, 435/325, 435/410, 536/23.1,
536/23.2, 536/23.7, 536/23.74, 536/24.32

ABSTRACT:

The present invention relates to fatty acid desaturases able to catalyze the conversion of oleic acid to linoleic acid, linoleic acid to gamma-linolenic acid, or of alpha-linolenic acid to stearidonic acid. Nucleic acid sequences encoding desaturases, nucleic acid sequences which hybridize thereto, DNA constructs comprising a desaturase gene, and recombinant host microorganism or animal expressing increased levels of a desaturase are described. Methods for desaturating a fatty acid and for producing a desaturated fatty acid by expressing increased levels of a desaturase are disclosed. Fatty acids, and oils containing them, which have been desaturated by a desaturase produced by recombinant host microorganisms or animals are provided. Pharmaceutical compositions, infant formulas or dietary supplements containing fatty acids which have been desaturated by a desaturase produced by a recombinant host microorganism or animal also are described.

30 Claims, 18 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 16

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KIMC](#) | [Drawn Desc](#) | [Image](#)

5. Document ID: US 5886037 A

L11: Entry 5 of 12

File: USPT

Mar 23, 1999

US-PAT-NO: 5886037

DOCUMENT-IDENTIFIER: US 5886037 A

TITLE: Nutritional composition for the treatment of hypertriglyceridaemia and hyperchylomicronaemia

DATE-ISSUED: March 23, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Klor; Hans-Ulrich Bernhard	Linden	N/A	N/A	DEX
Hauenschild; Annette	Lich	N/A	N/A	DEX

US-CL-CURRENT: 514/546; 424/523, 426/601, 426/602, 514/547, 514/557, 514/558, 514/560

ABSTRACT:

A nutritional composition comprising fats and optionally carbohydrates, proteins and other food constituents, in which the fatty acids of the fats consist of:

--55-95 wt. % n-3 polyunsaturated chain fatty acids caprylic acid and capric acid,

--5-25 wt. % of the medium chain fatty acids stearidonic acid, eicosatetraenoic acid, eicosapeataenoic acid, docosapentaenoic acid and/or docosahexaenoic acid,

--0-30 wt. % of other fatty acids,

is suitable for treating increased plasma lipid levels in hypertriglyceridaemia or hyperchylomicronaemia.

20 Claims, 0 Drawing figures Exemplary Claim Number: 1,16

Full	Title	Citation	Front	Review	Classification	Date	Reference
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KOMIC	Drawn Desc	Image
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6. Document ID: US 5670540 A

L11: Entry 6 of 12

File: USPT

Sep 23, 1997

US-PAT-NO: 5670540

DOCUMENT-IDENTIFIER: US 5670540 A

TITLE: Triglycerides of fatty acids

DATE-ISSUED: September 23, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Horrobin; David F.	Guildford	N/A	N/A	GB2
Knowles; Philip	Carlisle	N/A	N/A	GB2
Manku; Mehar Singh	Carlisle	N/A	N/A	GB2
McMordie; Austin	Carlisle	N/A	N/A	GB2

US-CL-CURRENT: 514/549

ABSTRACT:

A triglyceride for use in therapy or as a nutritional supplement, or a composition containing a triglyceride, wherein the triglyceride comprises a fatty acid selected from gamma-linolenic acid and the n-6 EFAs naturally derived therefrom and stearidonic acid and the n-3 EFAs naturally derived therefrom, forming a triple ester with glycerol or alternatively forming a double ester in which the other esterifying acide is a single residue of linoleic acid, with the proviso that the di-gammalinolenoyl-mono-linoleoyl glyceride if selected is used as a preparation containing more than 20% by weight thereof.

14 Claims, 0 Drawing figures Exemplary Claim Number: 1

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)
[KMC](#) | [Draw Desc](#) | [Image](#)
 7. Document ID: US 5260284 A

L11: Entry 7 of 12

File: USPT

Nov 9, 1993

US-PAT-NO: 5260284

DOCUMENT-IDENTIFIER: US 5260284 A

TITLE: Methods employing unique mixtures of polar and neutral lipids and sterol for lung surfactant replacement therapy

DATE-ISSUED: November 9, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lichtenberger; Lenard M.	Houston	TX	N/A	N/A

US-CL-CURRENT: 514/78; 514/171, 514/558

ABSTRACT:

The present invention discloses unique methods employing mixtures of phospholipids and neutral lipids for surfactant replacement therapy in the treatment of the various forms of respiratory distress syndrome. These compositions are shown to greatly enhance the surfactant replacement efficiency of surface-active lipids. In this regard, experimental models have shown that both the surface-tension lowering effect and rate of phospholipid absorption to an air/liquid interface are accelerated by the addition of triglycerides and/or sterols to mixtures of saturated or unsaturated phospholipids. Such compositions are therefore theorized to give new and enhanced therapeutic value to the use of surface-active lipids for surfactant replacement therapy in a subject without risk of immunogenic response. The subject methods also comprise a simple, rapid and inexpensive means for the deposition of polar lipids to a variety of air/liquid interfaces.

30 Claims, 22 Drawing figures Exemplary Claim Number: 1
Number of Drawing Sheets: 12

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KWC](#) [Draw Desc](#) [Image](#)**□ 8. Document ID: US 5223285 A**

L11: Entry 8 of 12

File: USPT

Jun 29, 1993

US-PAT-NO: 5223285

DOCUMENT-IDENTIFIER: US 5223285 A

TITLE: Nutritional product for pulmonary patients

DATE-ISSUED: June 29, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMichele; Stephen J.	Dublin	OH	N/A	N/A
Gregory; Timothy J.	Gahanna	OH	N/A	N/A

US-CL-CURRENT: 426/72, 426/73, 426/800, 426/801, 514/904

ABSTRACT:

A liquid nutritional product for enteral feeding contains a fat source which provides desirable effects when fed to pulmonary patients. The fat source having by weight a ratio of [n-(6) to n-(3)] fatty acids from the group consisting of Linoleic acid (18:2n6), Gamma-Linolenic acid (18:3n6), and Arachidonic acid (20:4n6) to fatty acids from the group consisting of Alpha-Linolenic acid (18:3n3), Stearidonic acid (18:4n3), Eicosapentaenoic acid (20:5n3), Docosapentaenoic acid (22:5n3) and Docosahexaenoic acid (22:6n3) in the range of about 1.5 to about 3.0, a ratio of Linoleic acid (18:2n6) to Alpha-Linolenic acid (18:3n3) in the range of about 3.0 to about 10.0, and a ratio of the sum of Eicosapentaenoic acid (20:5n3) and Docosahexaenoic acid (22:6n3) to Gamma-Linolenic acid (18:3n6) in the range of about 1.0 to about 10.0. In a preferred embodiment the nutritional product contains quantities of nutrients having anti-oxidant properties in vivo, such as beta-carotene, vitamin E, vitamin C, selenium, and taurine.

27 Claims, 6 Drawing figures Exemplary Claim Number: 1
Number of Drawing Sheets: 6

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KWC](#) [Draw Desc](#) [Image](#)**□ 9. Document ID: US 5043329 A**

L11: Entry 9 of 12

File: USPT

Aug 27, 1991

US-PAT-NO: 5043329

DOCUMENT-IDENTIFIER: US 5043329 A

TITLE: Methods and compositions employing unique mixtures of polar and neutral lipids for protecting the gastrointestinal tract

DATE-ISSUED: August 27, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lichtenberger; Lenard M.	Houston	TX	N/A	N/A

US-CL-CURRENT: 514/78; 514/171, 514/182, 514/77, 514/925

ABSTRACT:

Disclosed are compositions composed of unique mixtures of phospholipids and neutral lipids and methods of employing such compositions to treat the luminal lining of the gastrointestinal tract in the prevention or treatment of ulcerogenic processes such as peptic ulcer disease and inflammatory bowel disease. Compositions including mixtures of saturated or unsaturated phospholipids, together with saturated or unsaturated triglycerides and/or sterols, are shown to provide a surprising ulcer protective efficacy in experimental models. Further enhancement of activity is found upon the addition of a polyvalent cation or antioxidant to the various lipid mixtures.

18 Claims, 10 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	KMIC	Draw. Desc	Image
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 10. Document ID: US 5032585 A

L11: Entry 10 of 12

File: USPT

Jul 16, 1991

US-PAT-NO: 5032585

DOCUMENT-IDENTIFIER: US 5032585 A

TITLE: Methods and compositions employing unique mixtures of polar and neutral lipids for surfactant replacement therapy

DATE-ISSUED: July 16, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lichtenberger; Lenard M.	Houston	TX	N/A	N/A

US-CL-CURRENT: 514/78; 514/171

ABSTRACT:

Disclosed are methods employing compositions composed of unique mixtures of phospholipids and neutral lipids to treat the luminal lining of the gastrointestinal tract in the prevention or treatment of ulcerogenic processes such as peptic ulcer disease and inflammatory bowel disease. Compositions including mixtures of saturated or unsaturated phospholipids, together with saturated or unsaturated triglycerides and/or sterols, are shown to provide a surprising ulcer protective efficacy in experimental models. Further enhancement of activity is found upon the addition of a polyvalent cation or antioxidant to the various lipid mixtures.

The present invention also discloses unique methods employing mixtures of phospholipids and neutral lipids for surfactant replacement therapy in the treatment of the various forms of respiratory distress syndrome. These compositions are shown to greatly enhance the surfactant replacement efficiency of surface-active lipids. In this regard, experimental models have shown that both the surface-tension lowering effect and rate of phospholipid absorption to an air/liquid interface are accelerated by the addition of triglycerides and/or sterols to mixtures of saturated or unsaturated phospholipids. Such compositions are therefore theorized to give new and enhanced therapeutic value to the use of surface-active lipids for surfactant replacement therapy in a subject without risk of immunogenic response.

The subject methods also comprise a simple, rapid and inexpensive means for the deposition of polar lipids to a variety of air/liquid interfaces.

7 Claims, 22 Drawing figures Exemplary Claim Number: 1
Number of Drawing Sheets: 14

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KWMC](#) | [Draw. Desc](#) | [Image](#)

[Generate Collection](#)

Terms	Documents
stearidonic acid same triglyceride and (microb\$5 or yeast or microorganism or bacteria or coli)	12

[Display](#)

10 Documents, starting with Document: 11

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WEST**Generate Collection****Search Results - Record(s) 11 through 12 of 12 returned.** **11. Document ID: US 4950656 A**

L11: Entry 11 of 12

File: USPT

Aug 21, 1990

US-PAT-NO: 4950656

DOCUMENT-IDENTIFIER: US 4950656 A

TITLE: Methods and compositions employing unique mixtures of polar and neutral lipids for protecting the gastrointestinal tract

DATE-ISSUED: August 21, 1990**INVENTOR-INFORMATION:**

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lichtenberger; Lenard M.	Houston	TX	N/A	N/A

US-CL-CURRENT: 514/78, 514/182, 514/547, 514/925, 514/927**ABSTRACT:**

Disclosed are compositions composed of unique mixtures of phospholipids and neutral lipids and methods of employing such compositions to treat the luminal lining of the gastrointestinal tract in the prevention or treatment of ulcerogenic processes such as peptic ulcer disease and inflammatory bowel disease. Compositions including mixtures of saturated or unsaturated phospholipids, together with saturated or unsaturated triglycerides and/or sterols, are shown to provide a surprising ulcer protective efficacy in experimental models. Further enhancement of activity is found upon the addition of a polyvalent cation or antioxidant to the various lipid mixtures.

23 Claims, 10 Drawing figures Exemplary Claim Number: 1
Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWMC	Drawn Desc	Image
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 12. Document ID: US 4918063 A

L11: Entry 12 of 12

File: USPT

Apr 17, 1990

US-PAT-NO: 4918063

DOCUMENT-IDENTIFIER: US 4918063 A

TITLE: Methods and compositions employing unique mixtures of polar and neutral lipids for protecting the gastrointestinal tract

DATE-ISSUED: April 17, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lichtenberger; Lenard M.	Houston	TX	N/A	N/A

US-CL-CURRENT: 514/78; 514/547, 514/925

ABSTRACT:

Disclosed are compositions composed of unique mixtures of phospholipids and neutral lipids and methods of employing such compositions to treat the luminal lining of the gastrointestinal tract in the prevention or treatment of ulcerogenic processes such as peptic ulcer disease and inflammatory bowel disease. Compositions including mixtures of saturated or unsaturated phospholipids, together with saturated or unsaturated triglycerides and/or sterols, are shown to provide a surprising ulcer protective efficacy in experimental models. Further enhancement of activity is found upon the addition of a polyvalent cation or antioxidant to the various lipid mixtures.

15 Claims, 10 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 5

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Terms	Documents
stearidonic acid same triglyceride and (microb\$5 or yeast or microorganism or bacteria or coli)	12

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